

### Activities on the Go:

Case of the Broken Loop (PDF)

English - <http://www.epa.gov/epawaste/education/pdfs/4-6.pdf>

Espanol - <http://www.epa.gov/epawaste/education/pdfs/4-6span.pdf>

Follow that Trail (PDF)

English - <http://www.epa.gov/epawaste/education/pdfs/k-3.pdf>

Espanol - <http://www.epa.gov/epawaste/education/pdfs/k-3span.pdf>

Planet Protectors Create Less Waste in the First Place (PDF)

English - <http://www.epa.gov/epawaste/education/pdfs/jellyjar.pdf>

Espanol - <http://www.epa.gov/epawaste/education/pdfs/k99006s.pdf>

### Wacky Crayons Activity

How to make wacky crayons

Note: remember to get your parents' permission and help with this project!!



#### Recipe #1:

##### What you'll need:

Broken crayon pieces, mason jars, muffin tin, candy mold or cupcake pan.

Using a mason jar, melt the crayon pieces in a large pot of boiling water. Then pour them into the molds and let them cool. They just pop right out.

#### Recipe #2:

##### What you'll need:

Broken crayon pieces, muffin tin, candy mold or cupcake pan

Place crayon pieces into muffin tin, candy mold or cupcake pan. Heat the oven to 400 degrees. Leave in the oven long enough to melt. Turn off the oven and leave in the oven or take out very carefully so as not to mix colors if you are making multi-colored crayons. Wax will be very hot.

Keep in mind that you can make solid colors or make wacky crayons by mixing the colors.

HAVE FUN!!

#### Paper Making Activity

##### What you'll need:

Papermaking mold (screen) and deckle (these may be purchased from craft or art supply stores. You may make your own using an embroidery hoop and flexible plastic window screening or stiff net

curtain. Simply place the square of screening over the inside part of the embroider hoop. Then attach the top portion, leaving it slightly higher than the surface of the screen to form a deckle.)

Toilet tissue, facial tissue, or paper towels

Large mixing bowl

Wire whisk or hand egg beater

Large plastic bin large enough to accommodate the papermaking mold and deckle

Kitchen towel, newspapers, or paper towels, folded

Spatula

Rolling pin

Cookie sheet or other flat surface

Glitter, confetti, dried flowers (optional)

**Alert! This activity can be messy. If you are doing this activity at home, be sure to check with your parents or other adult before you begin. Wear old clothes. If it's a nice day, you may do this activity outside on a card table. If you are inside, place a layer of newspapers on the floor underneath your work area.**

Before you begin, gather all of your supplies together and put them out on the counter top. Read all of the directions from start to finish, becoming familiar with the procedure. Now you are ready to begin.

1) First, tear up about 4 cups of toilet tissue, facial tissue, or paper towels into pieces about the size of a postage stamp. Place these into the mixing bowl. Next add enough warm water to cover the paper (about 1 – 2 cups should do). Watch as the paper starts to absorb water and break down into soggy mush. What you are seeing is the wood fibers in the paper separating from one another. Papermakers call this mushy solution pulp.

2) Now, using the wire whisk or hand egg beater, mix the pulp until the fibers are separated and evenly distributed. No large clumps should remain. You may use your hands to break apart any remaining lumps.

3) Pour your pulp into the large plastic bin, and add more water until the bin is about half full. This watery mixture is called a slurry. Stir the slurry around with your hands. The consistency should be similar to very thin oatmeal. The thicker the slurry, the thicker your piece of paper will be. If it is too thick, add more water. If it is too thin, make another batch of pulp and add it to the slurry a little at a time until it reaches the desired consistency.

4) Fold the kitchen towel, newspapers, or paper towels into a thick pad about 1 inch thick and about the size of your papermaking screen, and place it on the cookie sheet. This pad is called a couching (pronounced "cooch-ing") mound. You will be turning your wet sheet of paper onto this couching mound to dry.

5) Now hold your paper mold (the screen part) horizontal above the slurry, screen side up. Place the deckle (the part with no screen) on top of the mold so they fit together squarely. Holding them together firmly with a hand on each side, lower them down into the slurry at about a 45 degree angle to the bottom of the bin, and then straighten them out so that they are horizontal. Swirl them around in the slurry a little, so that the fibers are suspended and evenly distributed in the water. Now, with the fibers still in motion, lift the mold and deckle straight up out of the water.

6) Hold the mold and deckle over the bin so that water can drain out into the bin. As the water is draining out, gently shake the mold and deckle from side to side and forwards and backwards to help the fibers settle. An even layer of pulp should cover the mesh. If you see a lot of holes, return the sheet to the slurry and begin it again. If the layer is too thin you may need to make another batch of pulp and add it a little at a time until slurry reaches the desired consistency.

7) When the water has stopped draining out, remove the deckle. (If no deckle has been used, the edges will be irregular. You may leave them uneven if you like, or you may form edges using a ruler or spatula).

8) Turn the mold over onto the couching mound using a quick motion so as not to tear your sheet. Slowly roll the mold from one edge of the screen to the other to loosen the sheet. If necessary, you may use a spatula to carefully separate the sheet from the mesh.

9) Place a towel or layer of paper towels on top of your sheet. Using a rolling pin, firmly but gently roll to remove more water. Carefully remove the top layer of toweling. Now lay your sheet, which is still attached to the bottom layer of toweling, out to dry. Your paper should be dry and ready to use in a few hours. You may speed up the process by removing the sheet of paper from the couch mound, or by placing it outside in the sun or in a sunny window to dry.

Once you have mastered the technique, experiment with new materials to make and decorate your paper. Pull apart some cotton balls and add them to the slurry (real cotton, as opposed to synthetic, works best). Or try adding confetti, glitter, or dried flowers to the damp sheet before drying. Add a few drops of food coloring to the slurry to make colored paper. There is no limit to the number of different looks you can achieve.